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AN ORNITHOLOGICAL TOUR IN NORWAY.

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(Concluded from p. 432.)

III. ARCTIC NORWAY.

June 11th, we sailed on board the Norwegian mail steamer, 'Erling Jarl,' a fast and very comfortable boat. In the Trondhjem fjord were Eiders, a Raven, Black Guillemots, and a few Scoters. A drake Eider is very conspicuous, and has the appearance of a duck flying upside down, the usual arrangement of colours, dark above and light below, being reversed. At and near Rörvik, in the evening, were a good many Black Guillemots (which fly fast like a Quail), Eiders, Arctic Terns, Kittiwakes, and an adult Richardson's Skua attending some of the last named; throughout our journey Eiders and Black Guillemots were frequently seen. The latter are remarkably neat little fellows, their red legs conspicuous as a passing bird swerves at close quarters. In a small cove near Rörvik a colony of Lesser Black-backed Gulls were sitting close together on shore. On the 12th we crossed the Arctic Circle near Hestmandö early in the morning, and about 11.30 came into Bodö. We had half an hour on shore, but saw only a Raven flying over the little wooden town, uttering short deep hollow croaks; whence perhaps the Swedish name "korp." Outside, besides other birds already mentioned, there had been Common Gulls, Cormorants, Shags, and some Oystercatchers on rocky holms. Bodö, backed with mountains still heavily

snow-covered, presented a most wintry appearance. The captain of the 'Erling Jarl' told me the season was about a month later than usual in the north. Eiders' eggs were for sale in some of the little shops. We had them for lunch on board, hard-boiled; the yolk is pinkish, and the white semi-transparent. I was greatly struck with the pretty appearance of the Eiders sitting sunning themselves on the rocky holms at the water's edge. From Bodö our course lay across the Vest Fjord. The view on the nearer approach to the Lofoten Islands was very grand in its sombre way—its cold hard beauty. Rugged, jagged-edged, barren, snow-capped, and snow-lined almost to the sea-level, the islands rose from a cold, dark steely-blue, white-flecked sea. Under a brilliant sun and in the clearest air, the scene was thoroughly arctic. The north wind was icy cold, but it had a bracing freshness that I had never quite experienced before. We ran through extraordinarily narrow but deep channels into Svolvær, on the island of Vaagö, a collection of wooden houses, chiefly built on piles, and redolent of drying cod-fish. Even as we lay there it seemed impossible for a big steamer to have come in so close among the rocky islets. A Magpie flitted about, impudently tame, near a big high wooden house—goods-warehouse, booking-office, and 'Lofoten Hotel' all in one. It had formed a bulky nest (the materials for which it must have collected at great pains) on one of the beams supporting the wide eaves. As we were passing along the islands south of Ost Vaagö, we saw both Cormorants and Shags sitting on the rocky islets. Harstad-havn, on the island of Hindö, was reached at 1.20 a.m. We were timed to stay there about two hours, and in a case like this the benefit of the midnight sun is felt, for we were able to start off for a walk. The pastures down by the shore were green and gay in places with marsh marigold, the low birch trees had their leaves half-opened, and willows were only just bursting into leaf. House Sparrows were chirping from the sheds, but Willow Wrens (there were many of them) were already abroad and singing. One is apt to imagine that in perpetual daylight (often perpetual sunshine) birds would hardly know when to go to roost, but they certainly do go to sleep for a few hours. We found a bunch of Starlings—always late risers—still at roost in a willow. Later on, one sitting on a roof-ridge imitated a Gull's "mee-ew." Starlings were pretty common here, and boxes have been put up on some



of the houses for them to nest in. But they were the last we saw on our way north. We noticed the Cuckoo (in song), Meadow Pipits, Wheatears (one singing from a roof-ridge), Grey Crows, a Magpie (which had a nest in a birch tree), an Arctic Tern at roost on a boat's gunwale, a Mallard, and a pair of Grey-lag Geese, which flew over "honking" loudly. We got to Tromsö on the morning of the 13th, and remained there until the 23rd.

Tromsö is a low green island lying in the Tromsö Fjord, and (the fjord on the east and west is very narrow, and in places reduced to a sound not more than 500 yards across) has the appearance of being surrounded by snow-clad mountains. It is about ten kilometres long by about four at its widest point. The low ground along the shores, consisting of pastures and a few cultivated patches, is very narrow, except on the west side, where two large green points bulge out; a good deal of their surface is covered with willow swamps and open bogs. Inland the island is covered with birch woods, except the north end, which rises rather higher than the rest, the top of which is broken ground, without trees, the ground being clothed with ling, *Empetrum*, moss, lichen, &c. The sides of this north end are for some reason drier than those of the other parts of the island, and the snow melts from them more quickly, perhaps because they are more open and less thickly wooded. They abound with dry heathery banks, and, naturally, the Willow Grouse is more abundant at this end of the island. On June 14th, along a little bend in the coast facing due north, a huge snow-drift still lay unmelted at the sea-level. When we arrived on the 13th the birch-woods were still much encumbered with snow-drifts, and it was not easy to get about in them. The birch-trees (about 8 to 10 ft. high on the barer parts, and perhaps 25 ft. high elsewhere) were then only just bursting into leaf, or had their leaves half-opened in sheltered places; the dwarf willows were in the same condition. Under foot in the woods were mosses, lichens, and some few taller plants shooting up; in other places the dead birch-leaves lay thick, pressed flat by the weight of winter snow. For about four feet up, the stems of the birches were bare and white; above that height they were garnished with a good deal of dark lichen. This produced a curious effect in the woods, the trees having a bare-legged appearance. Five days later the trees had come on considerably, and the birch-woods were beautifully green, with a delicate fresh colour; and I

never saw a brighter green than that of the tiny meadows and clearings. The people were still putting in some barley, but some was up, and about three inches high on the 18th. The woods, however, were still encumbered with snow-drifts. But the snow was melting fast on the surrounding mountains, and torrents roared all around in the mountains of Kvalö and the mainland.

We enjoyed some lovely hot sunny days, and by the time we left, on the 23rd, the beautiful short arctic summer had come. Cow-bells tinkled all about the pastures and drier bogs and the low woods. The people at the little farms sat outside, sewing, in the warm still afternoons, and wild flowers were everywhere coming into bloom. We found the Globe-flower (*Trollius europæus*), *Andromeda*, *Pyrola*, *Primula farinosa*, a bright yellow *Viola*, and many other showy species, and the air was sweet with the honeyed scent of the catkins of shiny-leaved and downy-leaved willows. In its wonderful fresh greenness of early summer, the island presented a lovely scene, belted with a narrow ribbon of fjord, and hemmed in by jagged, rugged, snowy mountains. On the 22nd a small dusky *Pieris* was on the wing, and *Erebia* (*Maniola*) *manto* was very plentiful.

The various species of woodland birds breed, for the most part, together in colonies. These are found near the edge of the woods. When you get deep into the woods, you see hardly any birds; a few Willow Wrens in the more open spaces, perhaps, and here and there a pair of Fieldfares or Bramblings (but these are seldom quite in the deepest parts of the woods), and very occasionally a Grey Crow, attracted probably by the loud cries of the Fieldfares. But on the outskirts of the birch-woods Fieldfares are common, and we used to find several nests in every walk we took; the birds were tame and noisy. Bramblings also were abundant, and Mealy Redpolls.

We visited the island of Grindö in the fjord, to the S.W., about two hours' row from the town of Tromsö. It is a low green island of a few hundred acres in extent, with some pastures round the eastern shores, and rising a little inland, where it is partly covered with birch-wood and partly with bog and semi-bog. Some crowberry covered the hillocks, and there was a fine growth of cloudberry in full bloom. Some low bluffs on the west side grown with *Empetrum nigrum*, *Vaccinium uliginosum*, &c., are favourite haunts of the Eiders in the breeding season.

Turdus pilaris.—We found pairs of birds and nests here and there in the birch-woods in various parts of the island; but for the most part the birds breed in colonies, though these sometimes consist of only a few scattered pairs. The first nest I saw, on the 13th, was some twenty feet up in a slender birch, against the trunk in the fork of the branches; the bird flew off, though sometimes they sit close, and on the 20th a Fieldfare, though she could see me, only came off the nest (with a great fuss and chatter) when I touched her tail with my umbrella. On the 14th I found a nest at the north end of the island, where the trees were small, in the fork of a low birch not more than two or three feet from the ground; but I never saw another nest on Tromsø at anything like so low an elevation. It was formed of two or three heather twigs, a little long grey lichen in the foundation, and a quantity of dead grass, and was well lined with mud mixed with vegetable substance, and then a very thick inner lining (half to three-quarters of an inch thick) of dead grass. The bird came off (between 3 and 4 p.m.), but had not then laid. On the 16th we saw a considerable colony on Tromsø, with nests in slender birches about fifteen feet up. This was near the edge of the woods close to some clearings, a position always preferred by the birds on account of facilities for feeding. The largest colony we visited was on the mainland, in the Tromsdal. Here we saw about fifty nests, chiefly about fifteen or twenty feet up in slender birches of about thirty feet in height; but some nests in lower trees were not more than ten or twelve feet from the ground. The nest is almost always (in a normal tree) placed in the main fork of the branches from the trunk. Of the nests I got up to, some were still empty, three had eggs—four, five, and six (the last “hard sat”)—and one young birds, four or five days old. All the nests had very thick inner linings of grass, from half to three-quarters of an inch thick within the mud, and in some cases a thin layer of mud divided from the mud lining by a stratum of grass. One egg in each nest differed from the rest of the clutch, being boldly spotted on a clear ground-colour. Some birds sat so closely that twice I touched one with a long stick before it would leave the nest. They are brave, too, and attacked a Grey Crow, and also, but less persistently, a Merlin. Fieldfares are very noisy when you invade their colony, but do not mob you, and soon withdraw to a little distance, that is to say, the individual pairs whose nests are closely

approached retire. We heard no song from Fieldfares in Tromsö. As usual, numbers of other birds were collected round and among the Fieldfares. We noticed many Bramblings and Mealy Redpolls, a pair of Redwings, some Willow Wrens, and, most curious of all, a pair of Merlins nesting in the midst of the colony; these, with a few Willow Grouse, made up the bird-life in the wood, which just at that part was alive with birds; elsewhere in the dale birds were scarce. There were some Fieldfares on Grindö when we visited it on the 17th, and a clutch of six eggs was brought to us by a son of the man living on the island.

T. iliacus.—We sometimes used to hear the Redwing's run of sweet whistling notes, and saw a few pairs of this shy, quiet bird. A pair had a nest amidst a colony of Fieldfares on Tromsö, about fifteen feet up on a slender birch. The pair nesting in the Tromsdal had young, for one bird was carrying food, but we could not trace this shy bird to its nest. The Redwing in summer uses the usual winter alarm-note "quip," and also an angry quick rattling cry, somewhat like a Song Thrush's; I only heard this from the last-mentioned pair.

Saxicola ænanthe.—Several on Tromsö; some on Grindö, and also quite at the top of the Floöfjeld on the mainland (about 2500 feet). Some of the males were of a beautifully clear grey, were cleanly marked, and had the black very distinct; the females were dark in colour. The Wheatears here perched freely on roofs, and on birch trees, &c.

Ruticilla phœnicurus.—Not uncommon about the clearings round the houses, and the edges of woods and of willow swamps along the shores.

Cyanecula suecica.—Bluethroats were fairly common in the willow-swamps, where on warm days mosquitos made careful watching rather irksome. I have been bitten by the mosquitos of three continents, and have met with some more poisonous than those of Arctic Europe; but for downright savageness and strength of apparatus I give the palm to the last named; they think nothing of biting you through your clothes where they fit closely. These bogs were clothed in places with a thick growth of willow scrub of three species, one with downy and two with smooth leaves. In the middle of June the catkins were golden and the leaves half expanded—flowering and leafing going on at the same time here, as the time is short. The catkins smelt very

sweet, and were the chief food of the numerous bumble-bees. There was much growth of arctic creeping birch, and stretches of moss, crowberry, cloudberry, &c. Here and there on higher banks a few birches reared their heads above the willows. The top of one of these birches is a favourite perch for a Bluethroat to sing from. But it does not court observation, is easily alarmed, and it is seldom long before it drops down into the concealment of the willows. Of the wonderful variety of the song I had further proof, and though the song once heard is easily recognized again, the variation in the notes of different individuals is remarkable. The following description of the song of a good singer which I took down, while agreeing with it in the main points, shows a considerable variation from that given of the song of a bird at Tönset (*vide supra*, p. 427). The Tromsö bird sang "chow chow chow chow," like a Thrush, then produced castanet sounds, then sounds of two castanets at once, then "chee chee chee chee chee" (a high pipe), "do-it do-it do-it do-it" (soft and mellow), "tip tip tip tip tip," "clit-ee clit-ee clit-ee clit-ee," rising all along; every now and then came the metallic "ting ting ting." This bird sang, in fact, a rather sharper song; "weee" was changed into "chee" and "wirree" into "clit-ee."

Phylloscopus trochilus.—Very abundant, and in full rich song. It was the most numerous bird in Tromsö, and was found everywhere on the island, except on a small piece of bare hill-top at the north end; even in the interior of the birch woods, where the paucity of bird-life was remarkable, a few Willow Wrens were generally to be seen about any little open space. We noticed many on Grindö, and in the wooded parts of the Tromsdal. From the much greater abundance of the Willow Wren in Tromsö than in those localities in southern and middle Norway which we visited, it seems possible that most of the Tromsö Willow Wrens, like some other migratory Passeres, arrive there by the eastern route (*cf.* Prof. Collett's 'Bird Life in Arctic Norway,' p. 13). On the 18th I found an unfinished nest by the lake side; the same day a bird in the willow swamps was building and wrestling with a big white feather, which proved too much for it; and another nest also, quite exposed in the side of a ditch by a road track, was unfinished, and lined partly with white grouse-feathers.

Acrocephalus phragmitis.—Abundant, and singing with great

energy, in the willow swamps and among the willow scrub along the shores. Not seen on Grindö. Prof. Collett writes, "With us it inhabits almost exclusively the regions north of the Arctic Circle" ('Bird Life in Arctic Norway').

Parus borealis.—Not uncommon in the birch woods, and seen on Grindö. It is a large fluffy bird, evidently well clothed; the back is of a very pale grey, the under parts are nearly white, and the large black cap extends on to the mantle. I found a nest on the 14th in a hole (apparently originally the work of a Woodpecker) in a rather rotten birch-stump, about four feet from the ground. The nest was slight, and consisted of little more than lining, formed of a little thin birch bark, less moss, some Lemming fur, and a good lot of white Willow Grouse feathers. It contained ten hard-set eggs, decidedly bigger than those of *P. palustris*. The birds were very tame. I had to break away part of the rotten bark to get at the nest, and wished to repair the damage; but the pieces would not remain when I replaced them, so I was driven to the clumsy expedient of tying a flexible birch-bough round the stump and fitting the pieces of bark in behind it. I made such a bad job of it that I was more than doubtful about the birds taking to the nest again. However, as I stood within two or three yards of the stump watching these beautiful Tits flitting about close to me, one came nearer and actually perched on the projecting end of my birch-bough; in a few seconds it hopped to the entrance of the hole, and after peering in for a few more it went in, and, to my relief, stayed there.

Motacilla alba.—We did not see many on Tromsö, and there were none on Grindö; a pair were carrying food on the 13th.

Budytes borealis (Sundevall).—This northern Yellow Wagtail was present on Tromsö when we arrived on the 13th, and was not uncommon among the willows and birches along the shores, and about the small clearings and meadows. It was, I think, even more common on Grindö. I found a nest there on the 17th, placed in a clump of *Empetrum nigrum*, and close to the nest of an Eider Duck. It was formed of fine grass, well lined with white cow-hair, and contained six nearly fresh eggs. This bird perches freely on birches and willows. It sings a bright wagtail-like strain; the call-note is a "wich-ee," like that of *B. rayi*, but perhaps stronger, which is very likely to be the case, as the bird is more robust than our common species. The crown and nape of this species is dark

slate-grey mixed with black; the feathers from the base of the beak to the eye, over the eye, and on the ear-coverts are black. An indistinct dusky crescent, caused by the presence of black and blackish feathers on the breast, is sometimes apparent. This is a very different looking bird in life from the Mediterranean *Budytes cinereo-capilla*, which, with the exception of its darker ear-coverts and the small size, or absence, of the white eye-stripe, hardly differs on the upper parts from *B. flava*.

Anthus pratensis.—After the Willow Wren, this was the commonest bird on Tromsö. It was common on Grindö, and we saw some in the barer parts of the Tromsdal before reaching the snow-fields at the upper end, and a few on the top of the Flöifjeld. They constantly perch on willows and birches; and they sing in this position the sitting song, "twee twee twee twee" or "chee chee chee chee."

A. cervinus.—Not at all common on Tromsö, but I met with a few in the bogs, and one near the lake. On Grindö I saw two or three, including one with a very fine red throat and upper breast. At this season the Red-throated Pipit is a very dark-coloured bird, and looks quite blackish-brown on the back at a little distance. The call-note is louder and fuller than that of *A. pratensis*. It was some time before I could make out the song satisfactorily, though on the first visit I paid to the bogs I heard the song of a Pipit which was new to me. The song is less rapid, fuller, and more musical and melodious than that of *A. pratensis*; some of the notes even approach those of the Tree Pipit pretty closely. On Grindö a boy took me to a nest which I believe belonged to this species, but the bird was not on, nor when I went back to it later; but I saw a Red-throated Pipit sitting in a birch close to the nest. The nest was placed in a raised clump of *Empetrum nigrum*; it was formed of dry, fine grass, lined with the same and a very little hair, and contained six eggs, mostly with hair-like dark lines about them.

A. obscurus rupestris.—I saw a pair on Grindö, on a rocky shore. They were grey birds, especially as to the head; the ground colour of the under parts approached white, and the under parts were well marked, the markings showing distinctly. I had a good view also of a pair some way up the Tromsdal, and at some little distance from the coast of the fjord. They were on the banks of the river, which just there are high and rocky, with

rugged boulders banked up steeply, but did not form cliffs. The description of them which I took down agrees with that of the Grindö birds, but I have noted that the head was a lighter shade than the back. In neither pair could I detect any signs of a rufous or pink shade on the under parts. The song of this form resembles that of our *A. obscurus*. I was able shortly afterwards to confirm my remembrance of the song of the latter bird, as I was on Flamborough Head, where it is common, in the first week in July.

Passer domesticus.—I saw a male in Tromsö town on the 19th, and two birds the next day. Herr Schneider (of the Tromsö Museum) told me that the House Sparrow arrived when the brewery was built, fifteen years ago; but I am sure they are still very scarce. The male mentioned above had a chirp deeper in tone than usual, and it looked rather dusky; the latter peculiarity might have been the effect of the rain, but a local male in the Museum bears out the observation, being very dusky, especially on the cheeks.

Fringilla montifringilla. — Abundant, but generally in the colonies, near the edge of the birch-woods and about the trees round outlying houses. We saw some on Grindö. But almost everywhere on Tromsö where there were birch-trees, except in the deeper parts of the woods, you could hear the loud, long-drawn, metallic, twanging "tweeee" or "weeeech"; but this is not always twanging, merely harsh and creaking in some cases. The bird has a modified Chaffinch's "whit"; the call-note is a sharp "kip," and there is also a Canary-like "chee-wee." Very occasionally I heard a few sweet twittering notes. The male is a most striking bird in summer dress; the female looks remarkably grey in hers. In the Tromsdal we found many Bramblings in the Fieldfare colony, and found three nests, all in slender birches, some twenty feet from the ground in a fork of a branch from the trunk, or in the fork of the main stem. One that I took down was formed of fibrous grass and the silky fur of the White Hare felted together. Outside this was a quantity of bright green moss (this is always apparent) worked up with a little fur and some grey lichen on the outside. In the fabric were some dead birch-leaves, a bit of Lemming's fur, and some white Grouse-feathers; the nest was thickly lined with these last, with the addition of a few horse-hairs. It was a thick-walled, bulky nest, and contained two

fresh eggs, with the ground colour greener than the eggs of the Chaffinch and sparingly spotted, save in a distinct zone at the big end. The next day we found Bramblings common about a colony of Fieldfares on Tromsö, and took a nest from the main fork of a birch about fifteen feet from the ground. As usual, the outside was chiefly formed of beautifully green moss, worked up with willow-down, shreds of dead plants (very fine and thin), and a few feathers. In the walls were a few bits of cotton-rag and yarn (there was a farmhouse not far off), and on the outside a very few bits of lichen. The inside was finished and rounded off with some bents. The lining was chiefly of cow-hair, with a few horse-hairs and some feathers of the Willow Grouse, Fieldfare, &c. Its thick walls make the nest of the Brambling a good deal broader than it is high. This nest contained six fresh eggs, not unlike some eggs of the Chaffinch, not so blue in ground colour as those in the other nest, and marked all over with indistinct suffused cloudings of light vinous colour, and with a very few scattered brown spots, hardly any of which are to be seen at the big end of the eggs. The Brambling sits very close; on the 18th I found one of the usual bulky bright green nests high up in a birch; the bird was on; usually they will fly off if you tap the tree, but the only response this bird made to tapping was to raise her head.

Linota linaria.—The Mealy Redpole was very common on Tromsö, and was usually more abundant in those parts of the birch-woods frequented by other species. But pairs were often seen in any part of the island where there were birches or willows. Some of the males had lovely rosy under-parts, while others showed no rose-colour underneath. They are lively, merry birds, and a pair never failed to attract attention. The males have a way of flying round and round in the air, uttering a note like "che-che-che-che." Other sounds uttered commonly by them are "zeeeeee" or "chzeeeeee" or "chizzzzz." As with Linnets in spring in England, I several times saw three birds together; I can never make out the reason of this. The Mealy Redpoll was pretty common on Grindö. In the Tromsdal we found many about the Fieldfare colony, and found two nests. One was about fifteen feet up in a birch; the bird sat until I tapped the tree, and then fluttered down to the ground and went as though wounded across the dead birch-leaves; she soon came back and went on to the nest again. The other nest was in an alder in the lower and

very wet part of the wood, some eight feet from the ground. The bird sat until my fingers were within an inch of her, and I should have touched her had not the alder-stem swayed so with my weight, for the nest was just out of reach from the ground. The nest was formed of dead grass and little else, with a thick lining of white Willow Grouse feathers. The young were hatched, and a day or two old.

Emberiza citrinella.—Not common, but seen near Tromsö town.

E. schœniclus.—Not uncommon about the willow bogs, &c.

Pica rustica.—Often seen about the houses; looking whiter on the wing than our birds. I saw some large domed nests in birch trees close to the houses, and an enormous nest on the top of one of the tall pyramidal piles of fencing or fish-drying posts, so commonly seen in North Norway.

Corvus corax.—This bird is occasionally seen about Tromsö. On the 19th no fewer than nine rose together from a bit of cultivated ground along the shore. We saw several on the Flöifjeld. I bought in Tromsö a very richly-marked Raven's egg. It is a much more handsome egg than any figured in the works of Meyer, Hewitson, or Seebohm. It is of the type shown in the lower figure in Hewitson's plate (1st edit.) and the right-hand figure of Seebohm's, but the surface-markings are bolder and much darker, of a black-brown indeed.

C. cornix.—Fairly plentiful.

Cuculus canorus.—Fairly common, and in good song.

Buteo lagopus.—When on the Flöifjeld (about 2500 feet) across the Sound on the mainland, we saw a pair of Rough-legged Buzzards several times flying above and below us. Once I came upon one of them sitting on a rock; when it rose it flew straight at me and passed overhead. These fine birds have a shrill, loud cry—"me-kow." All the under parts appeared white at some distance, except the dusky or dark brown tips of the wings, a reddish spot in the middle of them, and a patch of the same colour on the lower breast or belly. The upper parts were rather light coloured.

Falco æsalon.—In the midst of the Fieldfares' colony in the Tromsdal we found a pair of Merlins breeding. They had a nest (an old Crow's nest, I believe, made of rather big sticks) in a birch some thirty feet from the ground. As I came down hill

through the wood I saw the hen bird on the nest, and had to tap the tree before she would come off. Then she started off with angry cries, but settled again almost instantly, clinging to the side of the nest and uttering loud rapid angry cries, not unlike those of a Kestrel. Then she flew off and wheeled quickly round and round just over the tree-tops, with ringing cries. I moved away and sat down on a stump not far off, when she settled in a tree near the nest. But, finding that we did not go away, she flew up again and was joined by her mate for a short time. There was a Fieldfare's nest in a tree not more than half a dozen yards from the Hawk's nest; and a Mealy Redpoll sat on a tree close to the Hawk. Yet when she was flying round she was pursued and mobbed by the enraged Fieldfares, and the small birds were much excited. Let us hope the pair got most of their food from the fjeld side, whither the male soon departed. The female now remained flying round high up, coming lower occasionally. I had, very reluctantly, to forgo examining the nest, as it was beyond my powers to climb the tall slender smooth trunk of the birch. The female was a cold-brown bird; her mate bluish, and more distinctly marked beneath, but had no warm tints on the under parts.

Tinnunculus alaudarius.—The only Kestrel I saw in Norway was on the Flöifjeld; a very pale-coloured male, as seen from above. The great scarcity of diurnal birds of prey in Norway has been noticed by other writers. I believe head-money has been paid by the Government. The Government would have done better to pay head-money for Grey Crows, which are often painfully common. Magpies are so domestic in their habits, that they probably do much less damage to the eggs of wild birds.

Phalacrocorax carbo.—Occasionally seen; on Grindö, &c. I noticed a Cormorant one day at low tide sitting on a bank just above water among some other birds, hanging its wings out to dry.

P. graculus.—Occasionally seen; on Grindö, &c.

Anser cinereus.—I met with Grey-lag Geese several times on the west side of Tromsö, where they are said to breed. Twice I put up single birds at no great distance. On the 18th a pair flying round passed close to us low down; and on the 22nd I saw a string of six flying up the fjord. The light-coloured bill and grey on the wings are very noticeable. They "honked" and "gaggled"

loudly like domestic Geese, but the sounds are more highly pitched. I afterwards noticed this in the case of a pinioned Grey-lag kept in an hotel yard at Trondhjem. I should have liked very much to bring this bird away with me; it might have been bought for a trifle, for the landlady's daughter complained that it had been palmed off on her as a domestic Goose!

Anas boscas.—I saw a Mallard on Tromsö on one occasion only.

Dafla acuta.—A freshly-killed drake was hanging on the wall of a farm-house on the west coast of Tromsö.

Somateria mollissima.—Eiders were common on the coast of Tromsö. On one occasion I saw about forty together. There were a good many on Grindö, and we saw four nests (one egg taken was fresh). Two were on the *Empetrum*-grown bluffs, merely depressions, with a good deal of down; one was in some rocks, with less down; the fourth was placed against the walls of a shed, adjoining the one house on the island, under a bunch of fishing-line floats. The old bird was on, and sparred with her wings at the man's foot. We saw some dark brown downy young, three or four days old. The Eiders have, or would have, five or six young. The Eider on the wing has a Dutch-built appearance; the feet, which are stretched out behind, show on each side of the tail, and the bird flies heavily, though it goes fast when it has way on. They are noisy birds. The alarm-note is "go-gooo" or "oh-ooo." The call-note of the male is "oh-ooo-ow" (last part drawn out in some cases), uttered with head raised and bill pointing rather upwards. The female cries "ga-ga-ga."

[*Somateria spectabilis*.—To judge from the skins in a curiosity shop, the King Eider is not uncommon here.]

Mergus merganser.—Saw a female, or young male, off a seaweed-covered point on the west side of Tromsö. On Grindö we saw either on the shore at the edge, or just off shore, two single adult males, a pair of adults, and an adult male with two females or immature males. The old males were grand birds, with beautiful salmon-coloured under parts; we watched one asleep with his head turned back over his shoulder.

M. serrator.—On Grindö we saw a pair, two single drakes, and a single female. Seen in life, the female, to my mind, has little or no resemblance to a female Goosander; it is a more dusky bird.

Lagopus albus.—Abundant on the heather and crowberry-covered hilly ground, clothed with thin birch wood, at the N.E. end of Tromsö, and occasionally seen in other parts. The males look particularly handsome when standing on a hillock and crowing their "gap gap garararr," the red comb, bright chestnut head and neck, and white body showing up very well. It was curious to find at that date the males with their body-feathers still white, while the hens were brown; but this is evidently a provision of nature for the safety of the latter. I saw a great many birds on June 14th; all the cocks that I saw had only the head and neck and a few feathers on the back coloured; the females (there were three I felt quite sure of) had all the upper parts brown, of a much darker and duller shade than the cocks. On the 15th we saw a few in the Tromsdal, all cocks, and all with white backs, save for a splash or two of colour.

Eudromias morinellus.—After waiting patiently for the snow to melt a little, we went up the Flöifjeld on June 21st, and managed to reach the top after a hard and troublesome climb. The height is about 2500 feet. The chief difficulty was encountered about half-way up, in the shape of broad bands of snow,—slipping, melting, and rotten,—lying on or at the foot of steep places. These were quite impassable, and we had continually to alter our course, until we found some narrow place, or some spot where an open torrent had burst through. We reached the shoulders at last, after passing some very steep ground, and found uncovered ground sloping easily, rocky, or stony in places, and in others covered with last year's yellow grass, creeping birch lying as close to the ground as ivy, lichen, a little *Empetrum* and *Vaccinium*, and patches of brilliant purple *Saxifraga oppositifolia*. After this we were cut off from the top by large snow-fields, some too much undermined in places to be safe. But by crossing three or four long slopes of hard snow, carefully choosing our route, and taking advantage of some ridges of ground peeping out, we got to the top at last, and were rewarded by a magnificent view. We looked across the fjord and the islands, spread out like a map, and down the bending Tromsö Fjord and the Rys-trømmen, along which the 'Erling Jarl' was steaming southwards. Beyond was a waste of snowy mountains, the rugged peaks of Bensjordfjeld being especially fine. White cloud-bars were wreathed along the mountains, showing up as well against

the blue-shaded distant ones, as against those darker ones nearer at hand. We saw one Lemming (*Myodus lemmus*), and a dead one. A few days before we had found them abundant near the head of the Tromsdal, which skirts the Flöifjeld. We saw also three Arctic Hares (*Lepus variabilis*). One was of a pale whitish grey, head and ears darker and brownish; the second was french-grey, with white under parts; the third much the same as the first. Two were in rocky places, and both took up hill. The other we were much interested in watching as it crossed a broad snow-field below us (it was coming up). We had crossed it just before, and the Hare passed to leeward of our tracks. As she got parallel to them she became suspicious and sat, then went on a little, when she got our wind, and, changing from the lopping gallop, went on at a rare pace, but even then was not extended *ventre à terre* like our Hare. I examined her tracks; the fore feet were set down more nearly parallel than those of our Hare, but not quite parallel; the foot-prints were more than twice as big as our Hare's, the toes were spread out, and each one was marked distinctly in the snow. I picked up a foot and leg on a fjeld on the west side of the Osterdal near Tönset; the stiff hairs on the foot between the toes were very long. There were some Ravens at the top, and a few Wheatears and Meadow Pipits. My wife saw a Snow Bunting, but I did not; subsequent experience on Hammerfest, where we met with several, confirmed the observation. As we were climbing to the top I saw above us a Plover, so I made a detour, and came on a pair from behind some rocks, on a level with and close to them. They were Dotterel, and on rising uttered a single "whree" once or twice as they flew. They were in a little shallow hollow clothed with the usual plants, brightened with a beautiful patch of purple *Saxifraga oppositifolia*, and sheltered from the north by rocks. Here no doubt they intended to breed, but as they both went right away, I suppose they had not begun nesting. I found *Helix arbustorum* on the lowest (wooded) slopes of this fjeld, and at the foot the most brilliant little blue gentian I ever saw.

Egialitis hiaticula. — Not uncommon round the shores of Tromsö; and on Grindö.

Charadrius pluvialis. — A little flock of nine at Grindö were, with the exception of two or three (very fair plumage, nearly perfect), in poor summer dress. On the 22nd we saw three very

tame birds on a grassy spot on the shores of Tromsö. They were in poor summer dress; middle of belly black, with a white feather or two, throat and face brownish. Perhaps birds of the previous year.

Hæmatopus ostralegus.—Not uncommon around the shores of Tromsö, where their shrill piping, and sharp cry of "my feet" when on the wing, might often be heard. I found, on the 14th, on a narrow beach below the straggling birch woods, a nest with two eggs on the point of hatching. The nest was on a narrow belt of fine shingle (sometimes covered by a very high tide, for bladder-wrack lay further inland) about fifteen yards from low, and ten from the ordinary high, water mark. The nest was neatly lined with small stones, and bits of cockle, scallop, and mussel shells; the lining did not match the eggs in colour, for the shingle there was slate-grey and white. There is a rocky point at the north end of Grindö, with some beach of broken shells (cockle, whelk, bright red *Pecten*, &c.) and a little turf, where a good many birds breed. Here we found two nests placed where the rock and turf were mixed up. They contained only one egg each (one was fairly fresh), and had probably been robbed. One nest was lined with small stones, bits of hard dead wood, and a fragment or two of shell; the other was lined chiefly with broken shells.

Streptilas interpres.—A pair on this rocky point were, from their movements and tameness, probably nesting. A sharp single note was uttered by the bird on rising.

Phalaropus hyperboreus.—On the high ground at the back of Tromsö town there is a small lake or tarn, surrounded except at one end, where some boggy ground merges into it, with birch woods. Two grassy islands, besides minute islets, break its surface at the marshy end. On the 18th we found two pairs of Red-necked Phalaropes here; we had not noticed them before, and upon our first visit to the lake on the 13th it was chiefly frozen and snowed up. The little birds were wonderfully tame, floating high like ducks, or swimming rapidly, snapping eagerly from side to side at the insects on the water, along the shores of the islets. They often visited a patch of floating wood and weeds close to us, on which they occasionally landed. But what interested me most was the very evident play or display made by the females (or at least by the finer, brighter birds of the pairs,

which I took to be the females). This play consisted in the female spinning round rather rapidly on her own axis on the water, the wish to display and show off before her duller mate being very evident. Prof. Collett has told us that in this species it is the plainly-coloured male which is the weaker sex, and must wholly and entirely undertake the hatching of the eggs and the bringing up of the young. But that the female should go in for the play so remarkable in the males of some species at the beginning of the breeding season, was an exercise of rights for which I was hardly prepared. Although Prof. Collett writes that the trait of the male bringing up the young is more or less conspicuous with most of the arctic waders of the Stint and Sandpiper families, the female Red-necked Phalarope must surely be the typical "new woman" among them all. The Red-necked Phalarope swims fast. The ordinary notes uttered by the birds when on the water were a short "quut" or "quit," and a "chirra chirra chirra." On the pair rising and flying one after the other, we heard a rapid "ket-ket-ket-ket," and then, when they had settled again, a short "kyow" or two; perhaps this is the spring pairing note.

Gallinago major.—On the 16th I heard a bird in a bog, surrounded and partly overgrown by low willow-scrub two or three feet high, calling "ik-kak" (emphasis on first syllable), and, following up the sound, flushed a Great Snipe, which rose silently, flew a short distance with Owl-like flappings, and pitched again, when I flushed it a second time. Meanwhile a Snipe was wheeling round high up in the sky and drumming. The sound seemed deeper in tone than that made by the Common Snipe, but the bird was at a great height, and it was quite wonderful that the sound reached me at all. I do not know if this was the male.

G. caelestis. — Occasionally seen in the bogs and by the lake, and heard drumming and calling "whit-tuk."

Tringa temmincki.—On a bluff overgrown with crowberry, close to the shore, I came suddenly right on to a pair of these dusky grey birds; one rising just under my feet, uttered a sharp, quick note. Four days later I watched one feeding on some mud uncovered by the tide below a high bank; while I was sheltered by a bush, it fed up to within a few yards of me. It finally flew off in the direction of some bogs close at hand. I saw one other.

T. striata.—I saw a pair on a group of shelving rocks on the shores of Grindö. From their movements and tameness I should think they were breeding, but I could not find the nest. The man living on the island said they never found the eggs; but he said the same of the Turnstone, and the truth is, these people only search for the eggs of the larger birds.

Totanus hypoleucus.—One in the lower part of the river in the Tromsdal.

T. calidris.—Very common and noisy along the shores of Tromsö and Grindö, and there were some in the bogs and about the lake. But there were none at the lake when we visited it first on the 13th, as it was still nearly all frozen and snow-covered. On the 18th, however, all was changed. Two islands covered with yellow grass had appeared, and about and over these we saw Redshanks, and heard them calling from the grass. They swam along the edge of the islands sometimes, and occasionally perched on a stump. They were very melodious, crying "too-ey too-ey too-ey" from the ground, and "tooo-tooo" on the wing. When on the ground, too, a shrill trill is uttered, with raised and quivering wings. I was surprised to see how very brown their summer dress was.

Numenius arquata.—To be seen about the bogs; very noisy.

N. phaeopus.—A few only in the bogs.

Sterna macrura.—Two or three pairs on the shell-bank on Grindö; note a sharp "kik."

Larus canus.—A good many about. When walking along the shore, and once when on high ground, I was annoyed by Gulls following me, and every now and then uttering a warning cry. I saw one settle on a dead birch tree about fifteen feet or so high. There were a few pairs breeding on the rocky promontory on Grindö, and one pair on another group of flat rocks. We found six nests, each containing one egg (doubtless they had been robbed), and all in the flat rocks, made substantially of seaweed, dead grass, and some moss.

L. argentatus.—Occasionally seen. I procured in Tromsö an egg of the variety which has the ground colour white, and is marked with light red marks. They showed me a stuffed Herring Gull as the bird which lays these eggs. The particular individual which lays them is called the "Kongen-maag," and the people say that among a colony of Gulls breeding on an island, only one

pair produces these eggs, of the rarity of which they are fully aware, as Herr Schneider told me they usually asked five kröner for them. There are four of these eggs in the Tromsö Museum (some others were exhibited at a meeting of the B. O. Club last season), but Herr Schneider told me he had never seen one so slightly marked as the one I bought; it was taken on Tüsö, an island four or five Norwegian miles west of Tromsö. I was informed in Tromsö that *Larus marinus* had also been known to lay these red-and-white eggs.

L. fuscus.—Occasionally seen.

L. marinus.—A pair and a couple of single birds, all adult, on Grindö.

Rissa tridactyla.—Occasionally seen.

Uria grylle.—Adults occasionally seen in the fjord.

Colymbus glacialis.—A large grey Diver seen in the fjord on the 13th, was probably of this species.

[*C. adamsi*.—This Diver cannot be very uncommon here. Besides seven examples in the Museum, I found four (three of them in full plumage) in a shop in Tromsö. I was glad to have the opportunity of making a careful study of plumage and shape of this very distinct species; the shape and size of the bill alone would, I think, always be sufficient to identify it by.]

C. arcticus.—A pair inhabited a little lake on high ground at the south end of Tromsö, near the town, which is nearly surrounded by birch woods. When we visited it for the first time on the 13th it was still chiefly frozen up, and covered with wet and frozen snow, while clean snow lay in drifts along the shores. The only open water was in the middle, where there was a low islet covered with yellow grass. On the open water floated a Black-throated Diver in splendid plumage. It swam with neck arched and the body nearly all out of the water, until I partly alarmed it by demonstrations, when it sank lower, but soon came up again; presently (how we did not see) it was joined by another. The Black-throated Diver in breeding dress is a most distinct and striking bird; at a little distance the white markings on the scapulars appear confluent. But summer was advancing apace, and by the 18th the lake was transformed into a sheet of glassy water, surrounded by green birch woods; all the ice and frozen snow were gone, and the snow at the edge was all melted, save one or two drifts. There were then two islands covered with

yellow grass, about which Redshanks were calling. We made out one of the Divers lying (on her nest?) at the edge of one of the islands, while the other bird floated on a distant part of the water. Some hours later, in the evening, we passed the lake again, and as the sitting bird was still in the same position, we had no doubt it was on its nest. We sat down at the edge of the wood on the shore to watch the birds and enjoy the lovely scene. It was a very clear and calm evening; the blue sky, dappled with white clouds, the snow-capped and snow-lined mountains, the birch woods, the shore, a wooden barn, and even the Diver at the edge of the island, were all reflected in the water, and as clearly defined and coloured as the originals. A visitor from the south can hardly realize how greatly the people up here must long for, and enjoy their short but beautiful summer. On the 19th and 22nd also, we saw the Diver on her nest.

C. septentrionalis.—On the 14th a pair in the Sound were making a most unearthly noise, and another bird was wailing on the west side of the island. On the 22nd, near the same place, I saw one making shallow dives in shallow water close in shore; the tide was running very fast.

The Museum at Tromsø contains a most interesting collection of northern birds. Among the best things are three *Pagophila eburnea* in down, from Spitzbergen (unfortunately the eggs of this species had been mislaid, and I could not see them); hybrids between *Tetrao tetrix* and *Lagopus albus*; six or seven examples of *Colymbus adamsi*; a pure white example of *Uria troile*, with light-coloured beak and legs; and a white *Tetrao tetrix*, with a few black feathers.

We left Tromsø on the 23rd on board the 'Vesteraalen,' intending to pay a hurried visit to Hammerfest. About two hours out we had a good view of a "Springhval" or "Springer," about fifteen feet long, which takes a curious pleasure in projecting itself in an upright position from the water, and falling on its back or side. Just before passing the point Brynilen, the boundary of Finmarken, the southern point of an islet was seen simply white with Gulls. To judge by those passing us they were *L. argentatus*. And about that point we identified Razorbills (*Alca torda*). We reached Hammerfest about 11 p.m., and found the place already *en fête* for Midsummer-eve. Bonfires were looking rather foolish in the bright sunshine, but cannons were banging

off at intervals, and our four brass guns made a welcome addition to the noise. Near the Meridian Monument we saw a Magpie and its huge domed nest on the top of a stack of piled poles; there was another nearer the town. Their presence seems to be tolerated, but it is doubtful if they keep their pilfering beaks from the drying codfish, which hung in rows upon rows from a rough scaffolding, and made the place odorous with a full rich smell. Mounting the hill at the back of the town, where most of the inhabitants were foregathered, we turned our backs on the crowd, and made our way over the moor-like ground sloping upwards, boggy in places, and rocky and stony in others, and perhaps 200 to 300 feet above the sea. It was treeless, but some creeping arctic birch trailed over the ground here and there, while thin grass, *Empetrum nigrum*, moss, and lichen covered the soil. The arctic flora was making a gay show, and the ground was brightened with a yellow *Viola*, *Armeria maritima*, *Dryas octopetala*, *Rubus Chamæmorus*, an *Arabis*, a *Stellaria*, and fine patches of purple *Saxifraga oppositifolia*. But the snow had not entirely melted, and still lay in large drifts in the hollows. Close to one of these drifts I saw a Purple Sandpiper, running like a mouse along a band of snow, in and out among the peaty hummocks of *Empetrum*, moss, &c. It was very tame, and when flushed would not go far from the spot; its note when flushed was "tree" or "chree." Probably this bird, which exhibited the summer dress very well, had a nest or young. But I could not devote much time to looking for it, for there was still one bird whose acquaintance I had not yet made in the north, and I was determined to devote these last hours I should have on shore in Arctic Norway to a search for it. Presently, as I made my way over a rocky ridge, I caught the sound of a remarkably sweet song; it was only a few notes, but enough to inspire me with hope. I followed up the sound, and in a short time made out the bird. There on a grey rock, in the brilliant sunshine of the arctic night, sat a black-and-white male Snow Bunting (*Plectophanes nivalis*). A very pretty plate which appeared in 'The Zoologist' for 1881 was instantly recalled to my mind, although I had not the luck to find a Snow Bunting's nest. The Snow Bunting sits in an upright position, but looks as if he had his shoulders up to his ears—a natural attitude for a bird accustomed to cold winds and chilly mists. I crept nearer and nearer, and at last got within a few yards of the

bird. I then saw the brownish female creeping about the stones, or running quickly over the moss and low plants among some piled-up rocks on the rather steep slope the birds inhabited. This pair were very tame, and no doubt had a nest in some cleft or hollow in the rocks. The male presently dropped down and joined the female in her search for food, and at last, when I had pressed them too closely, they flew a short distance. But they were evidently attached to the spot, and would not leave it; and when we passed later on, the male sat on a lump of light grey rock singing again. Another male, which I saw, was answering him at some little distance, for sounds carried far in that clear air; and another sang from the hillside low down and just above the town. The Snow Bunting's song is gentle, sweet, and joyous, but not merry. Usually the strain is "a chee tee tee a wee a." But we had to think about rejoining our boat, and reluctantly turned our backs on that charming moorland. The sun shone brilliantly over the tops of the low snow-banded mountains, and struck quite hot, for Hammerfest, from its position, has a very mild climate. It was difficult to believe it was then about 1 a.m. The people were getting pretty merry as we descended the unprotected zigzag path to the shore, and one man we met seemed to have doubts as to his ability to weather us. Luckily he had sense enough to take the wall, for as he passed he fell helplessly on his side; as it was he merely rolled in a snow-drift. One of the few tiny pasture fields at the foot of the hill consisted almost entirely of *Alchemilla*.

On our way south the steamer stopped for a few minutes off Gibostad in Senjen. Here were immense numbers of Arctic Terns. I noticed three flocks, in one of which the birds were as thick as snowflakes, and the air was full of shrill cries of "krie" and "kik." With them, very busy, were four Richardson's Skuas—three dark and one light-bellied bird. At noon on the 25th we were at Bodö, and again saw a Raven. Just after leaving this we passed some rocky holms, and saw hundreds of Eiders, chiefly immature males in varied dress. About five o'clock we had a good view of a prolonged struggle between a dark Richardson's Skua and an adult Lesser Black-backed Gull. It lasted two or three minutes, and the birds kept close to the boat, going backwards and forwards; possibly the Gull claimed protection. Up into the air, and down to the water they went, over and over again.

Every time the Skua came down on to the Gull the former dropped its legs, and we could see them extended on each side of its tail. So far as I could see, it struck with its feet or foot; and it struck with effect, for several times it made small light feathers fly. The poor Gull screamed, and met each swoop by dropping its tail and bending up its neck and head backwards, so as to direct its beak upwards, at the same time opening its beak wide and threateningly. Either the Gull had nothing to give up, or was very obstinate, but the Skua took nothing, and just as two or three other Gulls came up, it made off, flying low over the water, and looking, with its long pointed wings, just like a black pirate. At 8 p.m., as we approached Sandnesöen, near the big island of Dönnö, eleven Grey-lag Geese flew past us. On the 26th, outside the Trondhjem fjord, we saw a Red-throated Diver, and a good many Oystercatchers, whose shrill, rapid, rattling cries often attract attention when the steamer passes close to the low rocky islets so common along this coast.

Correction.—In justice to Norwegian railways, I may state that “morning” (p. 422, third line from the bottom) should be “evening.”

NOTES AND QUERIES.

MAMMALIA.

The Alleged Cruelty of Stag-hunting.—The following letter has been sent to the Marquess of Salisbury:—

“My Lord Marquess,—In view of the strong objections which have now for several years been finding utterance privately and publicly against the continuance of tame Deer hunting by her Majesty’s Buckhounds, we, the undersigned, hereby express our deep regret to learn that another season’s sport has been inaugurated. There is little need to point out the unworthy nature of the park Stag hunt, for it has been repeatedly shown that the sport involves unfair treatment of the quarry and merciless riding of horses in the effort to save the Deer for another day. We think that such a pastime is the reverse of creditable to those who indulge in it, and that it is calculated to check the growth of humane feeling in all who witness it, particularly the young. If the sport were carried on by a private pack it would exercise this influence; much more then must this be the effect of the sport when it is conducted in the Queen’s name, and at the

cost of the nation. With such sentiments we venture to approach your Lordship on what we regard as an important subject. As it is now fully understood that the abolition of the Royal Buckhounds is a question for her Majesty's Ministers to deal with, we earnestly hope that the Government, of which your Lordship is the head, will take action in doing away with the establishment, or converting it into a national drag hunt."

The letter bears the signature of the following gentlemen:—The Lord Archbishop-Designate of Canterbury, Dr. Kitchin (Dean of Durham), Dr. Stephens (Dean of Winchester), Mr. Justin MacCarthy, M.P., Rev. Dr. James (Head Master of Rugby), Lord Coleridge, Q.C., the Bishop of Hereford, Sir William Wedderburn, M.P., Canon Barnett, Mr. Frederic Harrison, Rev. Dr. Clifford, and Sir W. H. Flower.

In answer to this memorial the following letters have been addressed to the editor of 'The Times,' by the Earl of Coventry, Master of the Royal Buckhounds, and by Mr. Henry Simpson, for twenty-five years Veterinary Surgeon to the Royal Hunt. They are published in 'The Times' of November 25th:—

"Sir,—My attention has been drawn to a letter condemning in general terms the cruelty which it is alleged is practised with the Queen's Hounds. There are now living five ex-masters of her Majesty's Hounds—the Earls of Cork and Hardwicke, Lords Colville of Culross, Suffield, and Ribblesdale. All of these gentlemen are well-known sportsmen who would never have tolerated, if it had been brought to their knowledge, any act of cruelty in the chase. It seems to me a matter for regret that gentlemen of high position, who are not themselves sportsmen, should have signed a document conveying offensive imputations which, in my experience, have no foundation.—COVENTRY. Croome, Nov. 24."

"Sir,—In the autumn of 1892 petitions for the abolition of her Majesty's Buckhounds were presented to her Majesty, on the ground of cruelty to the deer. The letter to Lord Salisbury on the same subject, just published, mentions also cruelty to horses, which are alleged to be mercilessly ridden in pursuit of the deer by the hunt servants. In my report this morning to Lord Coventry, the Master of Her Majesty's Buckhounds, I have been able to assure his lordship that during the twenty-five years I have had the honour of being veterinary surgeon to the Royal Hunt, not a single case of cruelty of any kind to the horses of the establishment has been brought home to any of the hunt servants, nor, indeed, has any complaint of such ever been made to me. I am authorized and requested by Lord Coventry to ask that you will be so good as to publish this fact. It is unnecessary to say more to refute the charge of cruelty to the deer than to remind the public that this question was thoroughly gone into in 1892. After a most searching enquiry, a petition signed by 15,000 responsible persons, comprising landowners, farmers, masters of hounds, and followers of the Royal pack, was presented to her Majesty, praying that stag-hunting

be permitted as heretofore, the petitioners stating as follows:—‘We beg to deny most emphatically that cruelty can be justly attributed to stag-hunting with the Royal pack.’ The answer to the petition for abolition and the counter-petition for continuance of stag-hunting was the adoption of the latter course.—HENRY SIMPSON. Gordon House, Windsor, Nov. 24.”

These letters should be a sufficient answer to those who share the views of the Memorialists, but whose very proper feelings of humanity have been unnecessarily aroused by a misapprehension of the details of a sport with which they have evidently no personal acquaintance.

Death of the Sea Lion at the Zoological Gardens.—The Patagonian Sea Lion (*Otaria jubata*), which was presented to the Society by Mr. F. E. Cobb, in May, 1879, and had consequently lived in confinement for more than seventeen years, has recently died. It is just thirty years since these great marine carnivores became known in Europe in a living state. The first example was brought home by François Lecomte, a French seaman, who succeeded in taming the animal, which was acquired by the Zoological Society, whose service Lecomte entered. This specimen unfortunately died in the same year, and Lecomte was sent out to procure others; but of the four with which he started from Port Stanley only one reached England alive. Since then till the present time the Society has always had one or two specimens on view. The feeding of the Sea Lion was invariably the signal for a large crowd of spectators to gather round the pond in which the creature was kept, to witness the performance. This consisted in the Sea Lion mounting a chair on a platform in the centre, and catching fish thrown to it by the keeper, diving from a platform erected at the side of the pond, and coming at call to take fish from the keeper's hand. The whole was an excellent example of the influence man can establish over the lower animals by kindness and patient persistence. Some little time since the creature's sight failed, and it was necessary to forgo for awhile the feeding in public, which, however, was afterwards resumed. But it was evident that failure of sight was not the only trouble, and the Sea Lions' pond has now no occupant.

BIRDS.

Occurrence of *Phylloscopus proregulus* in Norfolk.—In the November number of ‘The Zoologist,’ Mr. Caton Haigh recorded the occurrence of *Phylloscopus viridanus* on the Lincolnshire coast, and I have now the pleasure of adding yet another rarity, killed this time on the adjoining coast of Norfolk, to the already remarkable list of continental wanderers which have been recorded for this section of the east coast. The past autumn has been exceptionally productive of these “East and West” immigrants, and already the Great Spotted Cuckoo, Aquatic Warbler, and Black-breasted Dipper had been met with (all of which will doubtless be duly recorded by Mr. Gurney in his usual Norfolk notes), when Mr. Pashley,

of Cley-next-the-Sea, sent me for determination a pretty little warbler which Mr. Gurney and I recognized as *Phylloscopus proregulus*, a finding which Mr. Dresser was subsequently kind enough to confirm; the latter gentleman also exhibited the little stranger at the meeting of the Zoological Society on December 1st. The bird, which was killed at Cley on October 31st last, is in perfect condition, and, I imagine, adult plumage. *P. proregulus* may readily be distinguished from *P. superciliosus*, which it somewhat resembles (which latter species has already been killed in Norfolk), by the pale mesial line on the crown, also by the conspicuous pale yellow of the rump. Mr. Dresser figures this species in part ii. of the Supplement to his 'Birds of Europe.' Seebohm (Brit. Mus. Cat. v. p. 73) states that "Pallas's Barred Warbler breeds in the subalpine districts of the Himalayas from Cashmere to Burma, passing through North China on migration, and winters in South China, Burma, and Bengal." Mr. Gätke met with it once in Heligoland, but preserved only a wing; he is of opinion that there is a difference in the respective lengths of the flight-feathers in the Siberian and the Indian examples of this bird; but Mr. Dresser, after a careful examination, is unable to separate the birds from the two localities; if such difference existed, the Norfolk specimen, he says, certainly belongs to the Siberian form. One can hardly conceive of this and other equally delicate Warblers straying such an immense distance from their native haunts, and how they can survive such a journey across the whole of Europe, finishing with the North Sea.—THOMAS SOUTHWELL (Norwich).

A Robin in Bath Abbey.—Having read a notice in one of the Bath papers concerning a Robin which was reported to be seen daily in the Abbey, I went there on Sunday, Oct. 18th, to see how far the report was true. Soon after the service had commenced the Robin began to sing, and could be heard distinctly above the peals of the organ. On looking up I discovered that it was perched on a huge corona which hung from the roof. It sang prettily for a long while, and appeared quite unconcerned at its unusual surroundings. It finally disappeared, after flying about for a short time before the sermon began. Some friends informed me that this Robin first came inside the building more than a fortnight ago. One often hears of Robins and other birds entering buildings, but I am surprised at the length of time which this bird has been accustomed to do so, and I thought the fact might be worth recording.—C. B. HORSBRUGH (Richmond Hill, Bath).

Flight of Swift.—Mr. Howard Saunders, in his 'Manual of British Birds,' p. 251, writes of the Common Swift:—"Contrary to the popular belief, the birds are able to raise themselves from the ground." I always thought, too, that the "popular belief" was a pure superstition, but have recently been slightly shaken in my scepticism by the positive assertion of a friend of mine that a Swift which had been caught, on being placed, quite

uninjured, on a grass lawn, was utterly unable to rise and fly away. Is there really any foundation for the idea?—H. BRINSLEY BROOKE (33, Egerton Gardens, S.W.).

Kingfisher taking small Pike.—I have often watched a Kingfisher perched on an alder overhanging the river, and keenly eyeing the shoals of Minnows, some of which, with hover and dash, it eventually captured; but I had no idea that this bird sometimes takes fish much larger than Minnows or Sticklebacks. A few days ago a boy brought me a Kingfisher he had knocked down with a stone. I noticed a number of small scales upon the beak of the bird, and something protruding from its throat; and on withdrawal this proved to be a small Pike, which when alive must have been at least five inches in length, for the remains of it measured almost that, although the head had nearly disappeared by digestion, and the mutilated little fish weighed over half an ounce. It seemed extraordinary how such a large mouthful could be swallowed and then accommodated in the small stomach of such a bird, for very little was visible except the caudal fin when I first saw it. Both the capture and swallowing of such large prey seem unusual for so small a bird; but the elongated form of a young Pike would be better adapted to be swallowed than a more robust species, for example, a Perch of the same weight.—G. B. CORBIN (Ringwood, Hants).

On the Change of Plumage in some Exotic Finches.—Just now (Oct. 29th) I have in my aviary some young Gouldian Finches in the middle of their change from nestling to adult plumage. It must be warm work, for the new feathers come over the old, which do not drop out at the time. One died on Oct. 28th, and I sent it on to Sir William Flower for the Natural History Museum, as it is very interesting to see how it is done. A few of the feathers at the union of the violently contrasting colours seem to alter in tint, the colour growing in the feather itself. This is known to be the case in the crimson colouring of the variety *Porphyra mirabilis*, which when it first acquires its adult plumage closely resembles *P. gouldia*, but subsequently the black feathers of the head become rusty, red-brown, and finally crimson. The little Indian Amaduvade is always changing—I should think it must have half-a-dozen plumages in a year, but it only moults once. The Fire-Weavers (*Pyromelana*) only moult the flank feathers and upper tail-coverts, so far as I can judge, at the assumption of the breeding plumage; these feathers being replaced by long soft plumes which cover the short tail: all the other feathers change very gradually at first, and then rapidly, the full colour appearing first along the centre of the shaft and spreading forwards and laterally: I have not examined any of the moulted breeding-feathers recently; but so far as I can remember the colouring does not extend to the extreme base. The change is very irregular, some feathers colouring much sooner than others, so that at first the bird looks absurdly patchy. The change in the Wagtails (*Motacillidæ*) is similar: I have kept

some for years, both in cages and aviary, but never found a feather at the adoption of breeding-plumage. Their spring moult is a myth.—A. G. BUTLER.

Starlings rearing Two Broods in one Season.—Referring to Mr. Sutton's note on this subject (p. 388), I may remark that a second brood of Starlings is no very great rarity, at least in Hampshire. In 1872 I recorded an instance of this in the neighbourhood of Ringwood, and my friend (the late) Rev. H. G. W. Aubrey confirmed the observation by a record of a double if not triple brood in his own neighbourhood, about eleven miles from here (Zool. 1872-73). But to mention a more recent date: in the roof of a house almost opposite my own, two broods have been reared during the past summer, and now (Oct. 29th) the old birds are apparently repairing the nest for a third venture. During the exceptionally mild weather of last winter, a pair of Starlings might have been seen, especially in the early morning, on the corner of the house near the nesting-holes, or on the chimney at no great distance, uttering their well-known plaintive note, and very early in the year—(I unfortunately did not take the dates)—a brood was hatched, and as soon as they were able to fly the old birds drove them off and began a second nidification. On several occasions I was much amused to see the squabbles which took place between the old dark-coloured birds and their greyer-looking young. The latter were continually trying to enter the nesting-hole, which they sometimes succeeded in doing and were at once ruthlessly expelled by their parents. At first there were four young ones, but eventually the number was reduced to a single bird, which still clung to its old home until the second brood was hatched early in August, and so far as I could make out it assisted its parents to feed its younger relatives. It certainly carried something in its beak and entered the nesting-hole without molestation from the old birds, if they happened to return at the time. It is somewhat strange that, except in the early morning, the birds were scarcely seen at all in the neighbourhood; this may partly arise from the nesting-site being in the street. The second brood seem all to have disappeared suddenly, as I have not seen one of them for several mornings past; but while I am writing (Oct. 29th) I can see the two old birds perched on the slates near their favourite nursery, one of them whistling, whilst the survivor of the first family sits in a disconsolate attitude on the chimney-top, notwithstanding that the slates are covered with hoar-frost. Is it a well-known trait in the character of the Starling that often in the fine days of autumn it will soar to a considerable height, and hawk for flies in the bright sunlight after the manner of a Swallow? I have often seen them do so, but their soaring is not long continued.—G. B. CORBIN (Ringwood, Hants).

[As to Starlings hawking flies, we find on reference to an old note-book that we commented upon this habit of the bird in a note contributed to the Natural History columns of 'The Field,' Oct. 14th, 1871.—ED.]

Ornithological Notes from the Isle of Man.—During the last two years I have again had various opportunities of observing the Chough (*Pyrrhocorax graculus*) on the Manx coast. On April 15th, 1895, Mr. F. S. Graves and I visited an old haunt of the bird. This is a large cave, accessible from the beach at low water only, but piercing so far inland that its head is never reached by the sea. Finding the tide too far turned to admit of our getting in by land, we obtained, with some difficulty, a boat from a neighbouring strand, and rowed to the place. While trying to reach it by shore we had heard the Choughs' cries, but we had been some time in the cave before they appeared about the entrance, flying and calling, which they did intermittently while we remained there. Toward the mouth of the cavern, about thirty feet up, in an inaccessible crevice under its vaulting, we could see the nest, a conspicuous mass of sticks. On May 10th I found another nesting place in a part of the island where I should not have suspected the present existence of the Chough—in a stretch of low but much broken rocky coast, where the cliffs were probably never more than fifty feet high. A few Herring Gulls were nesting on flattish places among these rocks, and heathery and ferny ground, varied by some little "orchards" or patches of trees, came down to their edges. Near at hand was a burn-foot with a shingly beach, and the place commanded a wide view of the headlands and sea and the opposite mainland mountains. The nesting place was a rough gully, with sides so close together, and in places so overhanging, as almost to form a cave; the water never leaves its mouth, and its interior is blocked by great boulders wedged between slippery tide-washed ledges; altogether as inaccessible a spot as could be found in so low a coast. The nest was evidently among the crevices in the dry upper part of the gully, which was here very narrow, but so dark and ragged-edged that, though I several times visited the place, and frequently saw one or both birds come out of the chasm, I could never make out its exact situation, either from the top of the cliff or the bottom of the gully. The hen bird, after being roused from the nest, sat on a wooden fencing on the brow above, uttering, with opened wings and shaking body, its wild explosive cry of "kee-aw." This year I again saw the birds in the same locality, but am not able to say if they nested. On the cliffs in this neighbourhood, between Laxey and Dhoom, the "Caaig," as it was called, is said by elderly men to have been quite common within their recollection. It is now protected by Manx law all the year round, and, though probably nowhere numerous, I should consider it by no means yet on the verge of extinction. One of the immemorial sites of the Peregrine Falcon (*Falco peregrinus*) on our east coast was occupied both in 1895 and 1896. This year one of the young birds was caught on the rocks before it was well able to fly. On the cliff where this nesting place is situate are the remains of three large nests, probably Ravens', but none of these have been lately occupied. There is a small colony of Martins (*Chelidon urbica*) in a

cavernous place close by. On April 29th I found on the rocks a nest of the Hooded Crow (*Corvus cornix*), only some ten feet above the high-water mark of a little creek. It was built of sticks, chiefly gorse from the brows above; the cup in the centre very neat, lined with wool, moss, leaves of *Luzula*, and rags, with a bit of printed paper and an end of rope. The flat top of the low cliff, some fifteen feet high, on which the nest rested, was strewn with empty limpet-shells. So far as I have seen, the "Grey-back" shows very little solicitude when its nest is approached, strongly contrasting with the Raven in this respect. It is in this district far from sagacious in its choice of a nesting site. A pair built last year in a very accessible and frequented spot just to the north of Laxey Harbour, where I am told the nest was several times robbed and at last destroyed. On June 3rd, in company with Mr. Graves, I found a small breeding colony of Cormorants (*Phalacrocorax carbo*) on our west coast. There were about six nests, on rather broad ledges, just where a very steep hillside merges into a lofty perpendicular cliff. The nests were great structures laid on the flat ledges, and whitened all over; most of the birds showed white thigh-spots. Although, out of the breeding season, the Cormorant is commonly met all round the Manx coast, and is the species usually seen about the harbours, and on isolated stacks and on reefs, as, for instance, Conister in Douglas Bay, where quite a flock may sometimes be observed, yet as a breeding species it must (except perhaps on the Calf and the end of the island immediately opposite, of which I cannot speak with certainty in this respect) be decidedly rare; while the Shag in the nesting season is well distributed, and often numerous, but seems to scatter less in winter. The Black Guillemot (*Uria grylle*) is still to be found in certain localities; at one in some numbers, at others sparingly. At one of the latter I saw, on Feb. 27th this year, a little party of five already assembled, and swimming off their apparently breeding haunt, which a few continued to frequent through the summer. Though so few in number, they are well known in the neighbourhood in connection with that particular spot, and a cliff with a few cavernous recesses, which at high tide are filled with water. The low piping cry, well described by Capt. Feilden (Seebohm's 'Brit. Birds,' iii. 385) as a "plaintive whine," is sometimes very constantly repeated, and I have heard it uttered while the party was on the wing; it strikes me as a sound peculiarly dreary and cheerless. On July 6th, 1896, I visited a colony of Terns, perhaps the only one known to exist in Man. I am not aware that it has been determined whether the species is the Common (*Sternus hirundo*) or the Arctic (*S. arctica*). I saw perhaps fifty birds, which were very shy, and kept at a great height in the air while I was in the neighbourhood of their station. The nesting place was a ridge of large coarse gravel just above high-water mark; the nests were in many cases placed very close to each other. Most were quite unlined; one contained some straws of the sea-reed. The variety and richness of colouring of the eggs,

and the largeness of their markings, pointed, if books of reference are to be trusted, to the Arctic rather than the Common Tern. — P. RALFE (Laxey, Isle of Man).

On a Chocolate-coloured Variety of *Perdix cinerea*.—I have just mounted a very curious variation of the Common Grey Partridge. The major portion of the plumage, so far as it is moulted, is of a rich chocolate-brown and black. The general appearance of the bird at first suggests the possibility of its being a hybrid between a Red Grouse or Bantam Cock and a Partridge, as suggested by the gentleman who shot it. But a careful examination of the legs, bill, wings, and tail, show them to be those of a Partridge, without any other admixture. The only variation is in the colour of the plumage, and the bird is perhaps an extreme phase of the varietal form known as the Mountain Partridge, and named *Perdix montana*. I have met with a somewhat similar variety once before. Two birds were shot from a covey on the Cotswold Hills, about twenty-five years ago. The owner believes them to be a cross between a Red Grouse and Partridge, and it is difficult to persuade him otherwise. They are much paler in colour than the bird I now have, which is quite immature, but has nearly assumed the second plumage; the head, neck, portion of breast where the "horse-shoe" comes, edge of flanks, and sides of rump, still retain the nestling feathers, but these are all of a much paler type than in an ordinary Partridge. All the new feathers, as they are appearing, are of a rich brown, and if the change had been completed the bird would have been of a rich mahogany colour, deepening into a darker mahogany on the back and scapulars, with whitish centres and tips to the latter. The entire head and neck would have been of a light sandy buff, like the throat and sides of face in the Common Partridge, as these feathers were starting to come on the top of the head. As the bird is before me now, the new feathers from the upper breast downwards are of a deep mahogany-brown, shaded in their centres with darker. The back is a darker mahogany-brown, with a yellowish streak down centre and a whitish tip to some of the feathers; the rump is relieved with a pale reddish mahogany. The central upper tail coverts commence with a pale buff, gradually becoming of a richer tint and marbled with dark brown, and very broadly margined with dark chocolate brown; some of the outer ones have whitish tips, fringes and centres. The central rectrices are buff, margined, speckled, and marbled with dark chocolate. Outer tail-feathers light brown, shaded on ends and along inner necks with darker. Hinder tail-coverts mahogany, tipped and fringed with whitish. Scapulars blackish mahogany—they might be called black—with a tip, fringe, and central streak of whitish; the longest scapulars are a pale brown, the ends boldly marbled with yellowish white. The same applies to the outer secondaries. Wing-coverts blackish mahogany, with lighter shadings, and fringed and

centered with whitish and buff. Primaries hair-brown, slightly marbled with paler. Secondaries darker, with pale brown in the outer portion; fringed on ends, and mottled at base with pale buff. Hinder wing-coverts creamy white, edged and dabbled with pale brown. Axillaries also creamy white, thickly dabbled towards end with hair-brown and light brown. Legs and toes a drab tinge of yellow ochre; nails horn-brown. Bill slaty horn-brown. Irides brownish hazel. Length 14 in.; height $12\frac{1}{2}$ in. Thus showing it to be a heavy bird for a "cheeper." It was shot in Shropshire, on Sept. 8th, and was singled out from a covey of eight; all the others were said to be of the normal colour.—F. COBURN (Holloway Head, Birmingham).

Notes from Hampshire.—It may be of interest to readers of 'The Zoologist' to hear of some of the more noteworthy captures in the Winchester district, zoologically rich, during the past year. I am indebted to Mr. Chalkley for this list: the dates appended refer to those on which the specimens were sent to him for preservation:—A Hen Harrier (*Circus cyaneus*), shot by a keeper at Stockbridge on Nov. 23rd, 1895. Jan. 10th, 1896, Peregrine Falcon shot at Bramdean. Feb. 5th, Peregrine Falcon, shot at Whitechurch. Feb. 18th, Peregrine Falcon, shot at Micheldever. Feb. 27th, Otter (*Lutra vulgaris*), killed at Swathling, weighing $24\frac{1}{2}$ lbs. This animal is much rarer here now than formerly. March 6th, a Curlew (*Numenius arquatus*), shot at Shoeburyness. May 23rd, a Hobby (*Falco subbuteo*), shot at Warnford. Aug. 14th, a Hobby, shot at Avington Park. Sept. 15th, a Grey Phalarope, shot at Avington Park. Mr. Chalkley has several examples of this bird in his own collection which were shot near Winchester. Oct. 10th, Mr. Chalkley called my attention to a communication in a local paper in the Isle of Wight, recording, "that a Yellow-billed Cuckoo was found dead at Ventnor." This is quoted on the authority of a birdstuffer out there, a Mr. Smith, I believe. Several Herons have been sent to him at various dates, and one Skua Gull. I regret to state that an unusual number of Kingfishers have been shot this year in Hampshire.—G. W. SMITH (The College, Winchester).

Variety of Barn Owl.—On the 12th of August last, I saw an Owl which, unfortunately, had been shot the previous evening. Its dorsal plumage was darker than usual, and it had a deep buff band across the breast, the lower parts of the belly being white and spotted, a variation not unusual. But about the 8th of September I saw another, much darker than any previous specimen I had seen. The upper plumage was much darker than usual, and the whole under parts were of a warm, unspotted buff; sex, male. This specimen is not so dark perhaps as one described by Mr. Gurney (Zool. 1894, p. 226), or of one or two others recorded in previous volumes, yet its appearance amongst others of the more ordinary type is rather conspicuous. I may state that its face was white, with the

rust-colour spots near the eyes very plain and bright, and the feathers forming the facial disk were tipped with a very dark brown, especially below the ears.—G. B. CORBIN (Ringwood, Hants).

Sea Eagle in Notts.—On Nov. 8th my brother, Mr. George Musters, shot a specimen of this Eagle (*Haliaeetus albicilla*) on the Park Farm here. It measured 7 ft. 1 in. across the wings, and weighed 9½ lb. It was in immature plumage, but not a bird of the year, probably three or four years old. It was feeding on a dead rabbit, and was first seen on Nov. 5th.—J. P. CHAWORTH MUSTERS (Annesley Park, Notts).

Unusual Abundance of *Larus canus* in Hampshire.—The Common Gull has visited us this year in such unusual numbers, and with such regularity, that a short note on the point may be worth insertion. Strong winds do not necessarily bring these birds; but on still, foggy, close days they stream down into the water-meads like leaves in autumn, uttering their curious sharp cries, and performing the most curious antics on the wing, irresistibly reminding me of Swallows darting hither and thither in pursuit of flies. On Nov. 22nd the weather was very close, with a heavy mist obscuring sun and landscape, and I observed three separate flights of Gulls. The first I computed at fifteen, the second at thirty or forty, and the last at quite fifty individuals; these arrived between ten and one o'clock. The first company joined some of their fellows in the water-meads that have been here since Nov. 17th. They were scattered among a flock of feeding Rooks when I came up with them; but a Herring Gull (*Larus argentatus*)—I have seen seven of this species here this autumn—disturbed them, and singled out one of them and chased it out of sight. There has been a continual stream of Gulls flying inland from almost due east until to-day, when the mist having cleared and a cold north wind blowing (Nov. 24th), a large migration has taken place of birds flying due south, towards Southampton and the sea. Of these flights I have kept a record: between 12 and 1 o'clock a flock of some eighty or ninety birds flying high; between 2 and 4 o'clock, six large flights, numbering fifty, thirty, forty, eighty, sixty, and forty respectively. There are still some Gulls left in water-meads which have not joined the seaward migration; these birds must have been with us for the last seven nights; they choose for their resting-place a wooden bridge that has a convenient kind of banister on which they perch. I have never seen these birds feeding, although I have observed them at almost all hours of the day; I hope, however, to have an opportunity of examining the crop of one of these birds. Some of your readers may have noticed an article in the 'Standard' on Gulls on the Thames. They are certainly far more abundant this year than hitherto as remarked by Mr. Chalkley, who has lived here over thirty years. Dec. 3rd, the Gulls are still with us, and will probably remain permanently throughout the winter. A flock of some hundred individuals was feeding

in a ploughed field on the side of St. Catherine's Hills this morning with a large company of Starlings.—G. W. SMITH (The College, Winchester).

Eared Grebe in Kent and Stone Curlew in Sussex.—On Nov. 14th I had brought to me a male Eared Grebe (*Podiceps nigricollis*), shot on the sea about a mile east of Dungeness, Kent; weight 9 oz.; contents of gizzard a little moss; eyes yellow. Mr. G. Dowker, in his work on the 'Birds of East Kent,' tabulates it as "very rare," but probably, as Mr. Booth suggests in his 'Rough Notes,' it may perhaps be overlooked on account of its similarity in winter plumage to the Sclavonian Grebe, its slightly turned-up beak and white primaries, however, distinguishing it. Mr. Bristow had a very light-coloured Stone Curlew sent to him on Nov. 14th, which had been caught at Battle, Sussex. A Storm Petrel was also picked up alive on the sea-shore in front of the Grand Parade, St. Leonards, on Nov. 13th. The adult Richardson's Skua recorded by me about a month or two ago was a female (by dissection), and not a male, as I thought. The Osprey brought to me in September I found, on going to see the spot where it was shot while being mobbed by Rooks, was at Pett, about two miles nearer Hastings than Winchelsea, though still close to the Military Canal, which runs from there to Cliff End.—G. W. BRADSHAW (Hastings).

Purple Gallinule in Surrey.—Referring to Mr. Corbin's note on the occurrence of a Purple Gallinule in Hampshire (p. 434), it may be of interest to state, that as my nephew Mr. John Blackburne was walking by the side of the lake at Bury Hill, near Dorking, in September, 1894, he frequently saw a Purple Gallinule, *Porphyrio carulea*, standing on a hillock by the lake busily preening its feathers. He never saw it on the open water, but often disturbed it in the thickest part of the rushes or on the bank, when it would fly over to a thick bed of reeds, just skimming the surface of the water, and in February, 1895, he found it dead by the side of the lake. On examining it he found no signs of its having been shot, and it was in good plumage and condition. He sent it to be stuffed, and afterwards brought it to show me. It is now in the possession of Miss Barclay, of Bury Hill, Dorking. I think this is the fifth time a specimen of this bird has been obtained in Britain.—WM. BORRER (Cowfold, Horsham).

Pomatorhine Skua and Peregrine Falcon in Sussex.—A Pomatorhine Skua (*Stercorarius pomatorhinus*) was shot at Pett, near Hastings, at the end of September last. The bird, a young male, was sent for preservation to Messrs. Bristow and Sons, naturalists, of Silchester Road, St. Leonards-on-Sea, who inform me that a Peregrine (*Falco peregrinus*) is now in their hands, which was shot at Guestling, near Hastings, in the last week of October.—THOMAS PARKIN (High Wickham, Hastings).

Sabine's Gull in Cornwall.—It may interest your readers to know that I lately procured, at the little fishing-village of Porthgwarra, in Cornwall,

a specimen of Sabine's Gull in full breeding plumage. I discovered the bird—which was thought to be the Black-headed Gull—mounted in a case along with a Puffin and Guillemot. On making enquiries, the owner, Mr. John Jackson, informed me that it had been procured near the Wolfe Rock Lighthouse in September, 1894. According to Mr. Saunders, in the fourth edition of Yarrell's 'British Birds,' only two specimens in full summer plumage had occurred in the British Islands at the time of publication.—ARCHIBALD THORBURN (88, Fellows Road, South Hampstead).

SCIENTIFIC SOCIETIES.

LINNEAN SOCIETY OF LONDON.

Nov. 19th, 1896.—Mr. A. D. MICHAEL, Vice-President, in the chair.

Messrs. John Farrah and A. H. Pawson were elected Fellows of the Society.

Dr. D. Morris exhibited from the Royal Gardens, Kew, the inflorescence of *Pterisanthes polita*, a singular species of the Vine order (*Ampelideæ*), received in 1894 from Mr. H. N. Ridley, of Singapore, and now in flower for the first time in Europe. It is a slender plant, climbing 15 to 20 ft. over trees, native of the Malay Peninsula, Sumatra, and North Borneo.

Dr. Morris also exhibited dried flower-stems of the Australasian twin-leaved Sundew (*Drosera binata*, Labill.), received at Kew from the Sheffield Botanic Garden. In this instance the stems were 3 ft. 6 in. high, bearing about thirty to fifty large pure white flowers, nearly one inch across.

Mr. W. G. Ridewood read a paper on the "Structure and Development of the Hyobranchial Skeleton and Larynx in *Xenopus* and *Pipa*." He showed that the hyoglossal foramen in these genera owes its presence to the secondary union of the anterior or hyodean cornua, and that the great wings of the hyobranchial skeleton are secondary extensions of the hyobranchial cartilage, and not persistent branchial arches of the larva. The hyoidean cornua of *Pipa* are present in the embryo, but disappear during metamorphosis. Attention was drawn to sexual differences in the larynx, and the same seven muscles were shown to be present in relation with the larynx in the two genera. The thyrohyals and the greater part of the basal plate, which in the adults of *Pipa* and *Xenopus* are intimately associated with the larynx proper, were shown to remain free from it until metamorphosis is complete; and it was shown that previously to this the larynx is simple and resembles that of the adult *Bombinator* or *Discoglossus*. The conclusions were drawn that *Pipa* and *Xenopus* are descended from tongue-bearing ancestors, and that in spite of the anatomical differences between the two

genera, the suborder *Aglossa* is a natural one. The paper was illustrated by lantern-slides; and was commented on by the President, Prof. Mivart, and Prof. Howes.

A paper was then read by the Rev. T. R. Stebbing, "On the Collection of Amphipoda in the Copenhagen Museum." Some of the more striking rarities were described, together with a few of a less uncommon type. The collection being cosmopolitan, the opportunity was taken of bringing into notice certain other new or insufficiently known forms received from Prof. Haswell, of Sydney, N.S.W., and from Mr. G. M. Thompson, of Dunedin, N.Z. The range of the various specimens described extends from Cuba to Ceylon; from the North Atlantic to the South Pacific; from the western coast of Scotland to the eastern coast of Australia and New Zealand. Nine genera and ten species were discussed, six of each being new. The new genera comprised *Parhyale* (near to *Hyale*, but with palp of first maxillæ one-jointed, and with a minute inner branch to the third uropoda), *Andaniotes*, *Pontharpinia* (combining characters of *Haustorius*, *Urothoe*, and *Harpinia*, and founded on *Urothoe pinguis*, Haswell), *Anamixis*, *Eudiropsis*, and *Sancho*, the type of which is *S. platynotus*, from Port Jackson, Australia. The paper was illustrated with lantern-slides.

ZOOLOGICAL SOCIETY OF LONDON.

Nov. 17th, 1896. —Dr. ST. GEORGE MIVART, F.R.S., Vice-President, in the chair.

The Secretary read a report on the additions that had been made to the Society's Menagerie between May and October, 1896; and gave an account of some of the more interesting animals observed by him during a visit to the Gardens of Antwerp, Cologne, Dusseldorf, Hanover, Amsterdam, the Hague, and Rotterdam in June last.

Mr. Chalmers Mitchell made remarks on a supposed case of Telegony exhibited by a Fox-Terrier in showing peculiarities due to a previous impregnation by a Dachshund. A discussion followed, in which Sir Everett Millais, Mr. Tegetmeier, and others took part, and expressed opinions generally unfavourable to the theory of Telegony.

Dr. Leonard Hill made some remarks on supposed cases of the inheritance of acquired characters as shown by breeding Guinea-pigs.

Mr. Selater exhibited, on behalf of the Hon. H. S. Littleton, a coloured life-sized model of the Australian Lung-fish (*Ceratodus forsteri*).

Mr. Blanford exhibited, on behalf of Major C. S. Cumberland, some heads of *Ovis ammon* shot by him on the Altai Mountains in Central Asia. These heads were figured in 'The Field' of October last, in illustration of an article by Major Cumberland describing how, when, and where they were obtained.

Mr. Oldfield Thomas read a paper "On Further Collections from Nyasaland," being a continuation of three previous papers on the Mammals of that country. The specimens referred to had been collected and sent home by Sir Harry Johnston, Consul Alfred Sharpe, Dr. Percy Rendall, and Mr. Alexander Whyte. Two species were described as new: a peculiar hoary-coloured Baboon from Fort Johnston, proposed to be called *Papio pruinus*, and a Steinbok with white streaks in its fur characteristic of the Grysbok. The latter had been obtained by Mr. Sharpe in Southern Angoniland, and was proposed to be called *Raphiceros sharpei*.

Mr. W. E. de Winton read a paper on some Rodents from Mashonaland and Matabeleland, British South Africa, collected by Mr. J. Ffolliott Darling and Mr. F. C. Selous. This memoir contained descriptions of six species and two subspecies of rodents new to science. Amongst these were a Dormouse very much smaller than *Graphiurus murinus*, to which the name *G. nanus* was given; a Pouched Rat, which was called *Saccostomus mashonæ*; and a Mole-rat, proposed to be called *Georychus nimrodi*.

A communication was read from Mr. Alfred E. Pease containing notes on the Antelopes of the Aures and Eastern Algerian Sahara.

Communications were read from Dr. A. G. Butler on two collections of Lepidoptera made by Mr. R. Crawshay in Nyasaland; and on a collection of Lepidoptera from Nyasaland, collected by Mr. J. B. Yule.

A communication was read from Mr. Joseph I. S. Whitaker, containing field-notes on the Gazelles of Tunisia.—P. L. SCLATER, *Secretary*.

ENTOMOLOGICAL SOCIETY OF LONDON.

November 4th.—Professor MELDOLA, F.R.S., President, in the chair.

Mr. McLachlan exhibited a collection of the cast nymph-skins of more than one-third of the species of European dragonflies from the Département de l'Indre, France, sent to him by Mons. René Martin. Two or three of the species had been reared in an aquarium, but most of them were identified by finding the imago drying its wings near the cast skin.

Mr. R. Adkin exhibited a series of *Acidalia marginepunctata* taken on the coast at Eastbourne, during the past eight summers. The series included a bone-coloured form with pale transverse markings; others much dusted with black scales, giving a deep grey tone with well-developed markings; and sundry forms intermediate between the two; also three taken this year, in which the whole of the wings, with the exception of a pale submarginal line, are densely covered with black scales, presenting a similar appearance to the so-called "black" forms of *Boarmia* and *Tephrosia*.

Mr. Donisthorpe exhibited a female specimen of *Dytiscus circum-*

cinctus, Ahr., with elytra resembling in form those of the male, taken in Wicken Fen in August last.

Mr. Tutt exhibited a specimen of *Mellinia ocellaris* recently taken near Southend, together with a specimen of *M. gilvago* for comparison; also four specimens of *Argyresthia atmoriella*, taken by Mr. Atmore last June, at Lynn, Norfolk. Mr. Tutt also exhibited a long series of a *Melampias* which he had captured at Le Lautaret, in the Dauphiné Alps, at an elevation of 7000 to 8000 feet. He observed that the specimens exhibited were peculiar in some important particulars, combining some of the characteristics of *Erebia* (*Melampias*) *melampus* and *M. pharte*. His attention had been first drawn to this form by some fine examples captured by Dr. Chapman and himself on Mont de la Saxe in 1895. Compared with the Tyrolean examples of *M. melampus*, this form showed a tendency to a lengthening of the fore wings, and to an obsolescence of the black dots, thus approaching *M. pharte*, but the females presented none of the typical characters of the female of *M. pharte*. On the whole, he felt satisfied that the Mont de la Saxe specimens were a form of *M. melampus*. Mr. Elwes observed that though all the continental butterflies had been so long studied by European entomologists, he did not think the form exhibited by Mr. Tutt had been hitherto noticed. He agreed in the conclusion at which he had arrived.

Mr. E. Ernest Green exhibited a typical specimen of *Ephyra omicronaria*, together with what he believed to be a remarkable melanic variety of the same species, taken by Dr. Dudley Wright at Pegwell Bay, near Ramsgate, in September last. Some of the Fellows present, after an examination of the specimen, expressed an opinion that it was a variety of an *Acidalia*, and not of *Ephyra omicronaria*.

Mr. Goss stated that Mr. Harry Fisher, the botanist to the Jackson-Harmsworth expedition, had returned to England. He hoped that he would have been present at the meeting, to exhibit a few minute Diptera and other insects which he had collected in Franz Josef Land. Mr. McLachlan made some remarks on insects and flowers in high latitudes, and Mr. Elwes, Sir George Hampson, and Professor Meldola also commented on the subject.—H. Goss, *Hon. Secretary*.

Nov. 18th, 1896.—Prof. MELDOLA, F.R.S., President, in the chair.

Messrs. Malcolm Burr, G. H. Gale, and A. E. Wileman, were elected Fellows of the Society.

Mr. Tutt exhibited a series of the ochreous form of *Tephrosia bistortata*, Goetze, known as ab. *abietaria*, Haw., captured by Mr. Mason, near Clevedon, Somerset; and second broods of the same species (ab. *consonaria*, St.), bred from ova laid by the first-mentioned specimens. He also exhibited a series of *Tephrosia crepuscularia*, taken at Doncaster; a variety

of *Hipparchia semele*, captured near Ramsey, Isle of Man, and a series of *Plusia bractea*, bred from ova laid in July last. The eggs and larvæ had been subjected to forcing treatment, with the result that the moths emerged in October.

Dr. Sharp called attention to Mr. Ernest Green's plates of the *Coccidæ* of Ceylon, which were exhibited on a screen in the room, and said that he was inclined to consider the *Coccidæ* as a distinct order of insects, though at present the evidence was hardly sufficient to warrant this. He asked if Mr. Green could give any information with regard to the development of the wings in the male. Mr. Green stated that in the males of the *Coccidæ* the wings first appeared in the penultimate stage as small projections on the sides of the thorax. These wing-pads grew to a certain extent without any further ecdysis. Though the insect was then quite inactive, and took no food during this stage, the rudimentary wings and legs were free from the body, and were capable of some slight movement. After the final ecdysis the wings of the imago were fully expanded, and assumed their natural position before the insect left the sac, or puparium, in which the resting stage had been passed. Mr. McLachlan and others continued the discussion.

Mr. Bethune-Baker exhibited a yellow spider from Orotava, which was of the exact colour of the flowers that it usually rested upon, and which had been observed to catch *Vanessa* which settled on these flowers. Mr. Barrett said he had noticed a spider with the same habit on the ox-eye daisy in Surrey.

Professor Meldola stated that it had been of late found difficult to store bristles in the city, owing to the ravages of a moth, of which he exhibited living specimens of the larvæ and pupæ. Mr. Barrett said the moth was *Tinea biselliella*. Mr. Blandford stated that the bisulphide of carbon treatment might be found of advantage if it were practicable, but more would have to be ascertained with regard to the extent and character of the ravages before anything could be determined upon. Mr. Merrifield, Mr. Green, and others took part in the discussion which followed.

Mr. Blandford called attention to the use of formalin as a preventive of mould, and said that it would probably be found of use in insect collections; an object once sprayed with this substance never became mouldy afterwards. Professor Meldola said that formalin was another name for a solution of formic aldehyde: it is now much used in the colour industry and is, therefore, produced on a large scale.

Mr. Newstead communicated a paper entitled "New *Coccidæ* collected by the Rev. A. E. Eaton in Algeria."—H. Goss and W. W. FOWLER, *Hon. Secretaries*.

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